

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

<u>VIA ELECTRONIC MAIL</u> DELIVERY RECEIPT REQUESTED

Maureen Kertes, EHS Professional Utica Resource Operating, LLC mkertes@uticaresource.com

Re: Notice and Finding of Violation

Utica Resource Operating, LLC

Marietta, Ohio

Dear Ms. Kertes:

The U.S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violation ("NOV/FOV") to Utica Resource Operating ("URO" or "you") under Section 113(a) of the Clean Air Act ("CAA"), 42 U.S.C. § 7413(a). We find that you are violating the New Source Performance Standards ("NSPS") for Crude Oil and Natural Gas Production, Transmission and Distribution ("Subpart OOOO"), the NSPS for Crude Oil and Natural Gas Facilities ("Subpart OOOOa"), and terms of your Ohio Permits to Install and Operate ("PTIOs") at your Ohio facilities.

Section 113 of the CAA gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us (via teleconference) about the violations alleged in the NOV/FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the NOV/FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contacts in this matter are Natalie Topinka and Victoria Nelson. You may contact them at (312) 886-3853 and topinka.natalie@epa.gov, or (312) 886-9481 and nelson.victoria@epa.gov, respectively, to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

Michael D. Harris Division Director Enforcement and Compliance Assurance Division

Enclosure

cc: Bob Hodanbosi, OEPA James Kavalec, OEPA Devan Roof, OEPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5

IN THE MATTER OF:)
Utica Resource Operating, LLC) NOTICE AND FINDING OF VIOLATION
Marietta, Ohio) EPA-5-20-OH-02
Proceedings Pursuant to)
Section 113(a)(1) and (3) of the)
the Clean Air Act, 42 U.S.C.)
§ 7413(a)(1) and (3))
)

NOTICE AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency (EPA) is issuing this Notice and Finding of Violation ("NOV/FOV") under Section 113(a)(1) and (3) of the Clean Air Act ("CAA"), 42 U.S.C. § 7413(a)(1) and (3). Based on available information and as explained below, EPA finds that Utica Resource Operating, LLC ("URO") is violating Section 111(e) of the CAA, 42 U.S.C. § 7411(e). Specifically, URO is violating the Standards of Performance ("NSPS") for Crude Oil and Natural Gas Production, Transmission and Distribution at 40 C.F.R. Part 60, Subpart OOOO; the NSPS for Crude Oil and Natural Gas Facilities at 40 C.F.R. Part 60, Subpart OOOOa; and terms of your Ohio Permits to Install and Operate ("PTIOs") issued under the Ohio State Implementation Plan ("SIP"), as follows:

Regulatory Authority

1. The CAA is designed to, among other things, protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population. *See* Section 101(b)(1) of the CAA, 40 U.S.C. § 7401(b)(1).

The New Source Performance Standards and NSPS Subpart OOOO

- 2. Section 111 of the CAA, 42 U.S.C. § 7411, requires EPA to implement a New Source Performance Standards ("NSPS") program for the control of air pollutant emissions. NSPS regulations impose nationally uniform emission standards for new or modified stationary sources falling within industrial categories that significantly contribute to air pollution.
- 3. The NSPS includes Standards of Performance for New Stationary Sources for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015, found in 40 C.F.R. Part 60, Subpart OOOO ("Subpart OOOO").
- 4. Subpart OOOO establishes emission standards for the control of volatile organic compounds ("VOC") and sulfur dioxide emissions from various types of oil and natural gas production, processing, transmission, storage, and distribution equipment constructed, modified, or reconstructed after August 23, 2011, and on or before September 18, 2015, including storage vessels.

- 5. Subpart OOOO, at 40 C.F.R. § 60.5430, defines "storage vessel" as a tank or other vessel that contains an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water, and that is constructed primarily of non-earthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support.
- 6. A storage vessel is an affected facility subject to Subpart OOOO requirements if a properly performed emission determination indicates that the storage vessel has the potential for VOC emissions equal to or greater than six (6) tons per year. The potential for VOC emissions from a storage vessel must be calculated using a generally accepted model or calculation methodology, based on the maximum average daily throughput determined for a 30-day period of production prior to the applicable emission determination deadline specified in 40 C.F.R. § 60.5365. The determination may take into account requirements under a legally and practically enforceable limit in an operating permit or other requirement established under a Federal, State, local or tribal authority. 40 C.F.R. § 60.5365(e). A storage vessel meeting these criteria is defined as a "storage vessel affected facility."
- 7. Subpart OOOO, at 40 C.F.R. § 60.5365, provides, among other things, that owners and operators of one or more storage vessel affected facilities constructed, modified or reconstructed after August 23, 2011, and on or before September 18, 2015, are subject to the applicable provisions of Subpart OOOO.
- 8. Subpart OOOO requires the owner/operator of a storage vessel affected facility to comply with certain emission control requirements:
 - a. The owner/operator of a storage vessel affected facility must either: (i) reduce VOC emissions from the storage vessel by 95.0 percent; or (ii) maintain the uncontrolled actual VOC emissions from the storage vessel at less than four (4) tons per year without considering control. *See* 40 C.F.R. § 60.5395(d)(1)-(2).
 - b. For a storage vessel subject to the 95.0 percent emission reduction requirement, the required emission reduction must be achieved by control requirements that include equipping the storage vessel with a cover that meets the requirements of 40 C.F.R. § 60.5411(b), connecting the storage vessel to a closed vent system that meets the requirements of 40 C.F.R. § 60.5411(c), and either: (i) routing the storage vessel vapors to a control device (such as an enclosed combustor) that meets certain requirements; or (ii) routing the storage vessel vapors to a process. 40 C.F.R. § 60.5395(e).
- 9. Subpart OOOO, at 40 C.F.R. § 60.5411(b), requires that covers on storage vessels meet certain requirements, including that the cover and all openings on the cover shall form a continuous impermeable barrier over the entire surface area of the liquid in the vessel; each cover opening shall be secured in a closed, sealed position except when certain activities are ongoing; and that each storage vessel thief hatch shall be equipped, maintained, and operated with a weighted mechanism or equivalent, to ensure the lid remains properly seated.
- 10. Subpart OOOO, at 40 C.F.R. § 60.5411(c), requires that the closed vent system is designed to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements of 40 C.F.R. § 60.5412(c) and (d); and to design and operate a closed vent system with no detectable emissions, as determined using olfactory, visual, and auditory inspections.
- 11. Subpart OOOO, at 40 C.F.R. § 60.5412(d), requires that each control device used to meet the emission reduction standard in 40 C.F.R. § 60.5395(d) for storage vessel affected facilities must be

installed according to 40 C.F.R. § 60.5412(d)(1) through (3), as applicable. As an alternative to 40 C.F.R. § 60.5412(d)(1), owners/operators of storage vessel affected facilities may install a control device model tested under 40 C.F.R. § 60.5413(d), which meets the criteria in 40 C.F.R. § 60.5413(d)(11) and § 60.5413(e).

- 12. Subpart OOOO, at 40 C.F.R. § 60.5412(d)(1)(ii), requires that, for each enclosed combustion device, owners/operators must install and operate a continuous burning pilot flame.
- 13. Subpart OOOO, at 40 C.F.R. § 60.5413(e), requires that owners/operators of combustion control devices tested by the manufacturer demonstrate that the control device achieves the performance requirements in 40 C.F.R. § 60.5413(d)(11) by installing a device tested under 40 C.F.R. § 60.5413(d) and complying with the criteria specified in 40 C.F.R. § 60.5413(e)(1) through (7).
- 14. Subpart OOOO, at 40 C.F.R. § 60.5413(e)(2), requires that a pilot flame on the combustion control device must be present at all times of operation.
- 15. For a storage vessel not subject to a legally and practically enforceable limit on its potential for VOC emissions, the Subpart OOOO emission determination may exclude vapor from the storage vessel that is recovered and routed to a process through a vapor recovery unit designed and operated as specified in Subpart OOOO provided that: (i) the storage vessel meets the cover requirements specified in 40 C.F.R. § 60.5411(b); (ii) the storage vessel meets the closed vent system requirements specified in 40 C.F.R. § 60.5411(c); and (iii) the owner or operator of the storage vessel maintains records that document compliance with the cover requirements specified in 40 C.F.R. § 60.5411(b) and the closed vent system requirements specified in 40 C.F.R. § 60.5411(c) for the storage vessel. *See* 40 C.F.R. § 60.5365(e)(3).
- 16. If the original emission determination for a storage vessel excluded storage vessel vapor that would be recovered and routed to a process through a vapor recovery unit, the owner or operator must make a new emission determination calculating the storage vessel's potential for VOC emissions within 30 days if: (i) the storage vessel is operated without meeting the cover requirements specified in 40 C.F.R. § 60.5411(b); (ii) the storage vessel is operated without meeting the closed vent system requirements specified in 40 C.F.R. § 60.5411(c); or (iii) the vapor recovery unit is removed. See 40 C.F.R. § 60.5365(e)(3)(iv).
- 17. Subpart OOOO, at 40 C.F.R. § 60.5410(h), requires owners and operators of storage vessel affected facilities to demonstrate initial compliance with Subpart OOOO for each storage vessel. In order to demonstrate initial compliance with Subpart OOOO, owners and operators must have completed five compliance requirements found elsewhere in Subpart OOOO: determining the potential VOC emission rate (40 C.F.R. § 60.5365(e)); reducing VOC emissions (40 C.F.R. § 60.5395(d)); meeting certain cover, closed vent and control device requirements, as applicable (40 C.F.R. § 60.5395(e), referencing, among other things, 40 C.F.R. § 60.5411(b) and (c)); meeting reporting requirements, including an initial annual report due no later than 90 days after the initial compliance period (40 C.F.R. § 60.5420(b)); and maintaining appropriate records (40 C.F.R. § 60.5420(c)).
- 18. Subpart OOOO, at 40 C.F.R. § 60.5370(b), requires that at all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to EPA which may

include but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

NSPS Subpart OOOOa

- 19. The NSPS includes Standards of Performance for New Stationary Sources for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015, found in 40 C.F.R. Part 60, Subpart OOOOa ("Subpart OOOOa").
- 20. Subpart OOOOa establishes emission standards for the control of emissions of VOC, sulfur dioxide, and greenhouse gases in the form of methane from various types of equipment at oil and natural gas facilities constructed, modified, or reconstructed after September 18, 2015, including storage vessels.
- 21. Subpart OOOOa, at 40 C.F.R. § 60.5430a, defines "storage vessel" as a tank or other vessel that contains an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water, and that is constructed primarily of non-earthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support.
- 22. Subpart OOOOa, at 40 C.F.R. § 60.5365a(e), provides a storage vessel is an affected facility subject to Subpart OOOOa requirements if a properly performed emission determination indicates that the storage vessel has the potential for VOC emissions equal to or greater than six (6) tons per year. The potential for VOC emissions must be calculated using a generally accepted model or calculation methodology, based on the maximum average daily throughput determined for a 30-day period of production prior to August 2, 2016, or within 60 days after startup (whichever was later). The determination may take into account requirements under a legally and practically enforceable limit in an operating permit or other requirement established under a Federal, State, local or tribal authority.
- 23. Subpart OOOOa, at 40 C.F.R. § 60.5365a, provides, among other things, that owners and operators of one or more storage vessel affected facilities constructed, modified or reconstructed after September 18, 2015, are subject to the applicable provisions of Subpart OOOOa.
- 24. Subpart OOOOa requires the owner/operator of a storage vessel affected facility to comply with certain emission control requirements:
 - a. The owner/operator of a storage vessel affected facility must either: (i) reduce VOC emissions from the storage vessel by 95.0 percent within 60 days after startup; or (ii) maintain the uncontrolled actual VOC emissions from the storage vessel at less than four (4) tons per year without considering control. *See* 40 C.F.R. § 60.5395a(a)(2)-(3).
 - b. For a storage vessel subject to the 95.0 percent emission reduction requirement, the required emission reduction must be achieved by control requirements that include equipping the storage vessel with a cover that meets the requirements of 40 C.F.R. § 60.5411a(b), connecting the storage vessel to a closed vent system that meets the requirements of 40 C.F.R. § 60.5411a(c) and (d), and either: (i) routing the storage vessel vapors to a control device (such as an enclosed combustor) that meets certain requirements specified in 40 C.F.R. § 60.5412a(c) or (d); or (ii) routing the storage vessel vapors to a process. 40 C.F.R. § 60.5395a(b).

- 25. Subpart OOOOa, at 40 C.F.R. § 60.5411a(b), requires owners and operators of storage vessel affected facilities to ensure that covers on storage vessels meet certain requirements, including that the cover and all openings on the cover shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel; each cover opening shall be secured in a closed, sealed position except when certain activities are ongoing; and that each storage vessel thief hatch shall be equipped, maintained, and operated with a weighted mechanism or equivalent, to ensure the lid remains properly seated and sealed under normal operating conditions, including such times when working, standing/breathing, and flash emissions may be generated.
- 26. Subpart OOOOa, at 40 C.F.R. § 60.5411a(c), requires owners and operators of storage vessel affected facilities using a control device to control emissions or routing emissions to a process to design closed vent systems to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements of 40 C.F.R. § 60.5412a(c) and (d); and to design and operate a closed vent system with no detectable emissions, as determined using olfactory, visual, and auditory inspections.
- 27. Subpart OOOOa, at 40 C.F.R. § 60.5412a(d), requires that each control device used to meet the emission reduction standard in 40 C.F.R. § 60.5395a(a)(2) for storage vessel affected facilities must be installed according to 40 C.F.R. § 60.5412a(d)(1) through (4), as applicable. As an alternative to 40 C.F.R. § 60.5412a(d)(1), owners/operators of storage vessel affected facilities may install a control device model tested under 40 C.F.R. § 60.5413a(d), which meets the criteria in 40 C.F.R. § 60.5413a(e).
- 28. Subpart OOOOa, at 40 C.F.R. § 60.5412a(d)(1)(ii), requires that, for each enclosed combustion device, owners/operators must install and operate a continuous burning pilot flame.
- 29. Subpart OOOOa, at 40 C.F.R. § 60.5413a(e), requires that owners/operators of combustion control devices tested by the manufacturer demonstrate that the control device achieves the performance requirements in 40 C.F.R. § 60.5413a(d)(11) by installing a device tested under 40 C.F.R. § 60.5413a(d) and complying with the criteria specified in 40 C.F.R. § 60.5413a(e)(1) through (8).
- 30. Subpart OOOOa, at 40 C.F.R. § 60.5413a(e)(2), requires that a pilot flame on the combustion control device must be present at all times of operation.
- 31. For a storage vessel not subject to a legally and practically enforceable limit on its potential for VOC emissions, the Subpart OOOOa emission determination may exclude vapor from the storage vessel that is recovered and routed to a process through a vapor recovery unit designed and operated as specified in Subpart OOOOa provided that: (i) the storage vessel meets the cover requirements specified in 40 C.F.R. § 60.5411a(b); (ii) the storage vessel meets the closed vent system requirements specified in 40 C.F.R. § 60.5411a(c) and (d); and (iii) the owner or operator of the storage vessel maintains records that document compliance with the cover requirements specified in 40 C.F.R. § 60.5411a(b) and the closed vent system requirements specified in 40 C.F.R. § 60.5411a(c) and (d) for the storage vessel. See 40 C.F.R. § 60.5365a(e)(3).
- 32. If the original emission determination for a storage vessel excluded storage vessel vapor that would be recovered and routed to a process through a vapor recovery unit, the owner or operator must make a new emission determination calculating the storage vessel's potential for VOC emissions within 30 days if: (i) the storage vessel is operated without meeting the cover requirements specified in 40 C.F.R. § 60.5411a(b); (ii) the storage vessel is operated without meeting the closed vent system

requirements specified in 40 C.F.R. § 60.5411a(c) and (d); or (iii) the vapor recovery unit is removed. See 40 C.F.R. § 60.5365a(e)(3)(iv).

- 33. Subpart OOOOa, at 40 C.F.R. § 60.5410a(h), requires owners and operators of storage vessel affected facilities to demonstrate initial compliance with Subpart OOOOa for each storage vessel. In order to demonstrate initial compliance with Subpart OOOOa, owners and operators must have completed six compliance requirements found elsewhere in Subpart OOOOa: determining the potential VOC emission rate (40 C.F.R. § 60.5365a(e)); reducing VOC emissions (40 C.F.R. § 60.5395a(a)); meeting certain cover, closed vent and control device requirements, as applicable (40 C.F.R. § 60.5413a) and complying with continuous compliance requirements (40 C.F.R. § 60.5415a(e)); meeting reporting requirements, including an initial annual report due no later than 90 days after the initial compliance period (40 C.F.R. § 60.5420a(b)); and maintaining appropriate records (40 C.F.R. § 60.5420a(c)).
- 34. Subpart OOOOa, at 40 C.F.R. § 60.5370a(b), requires that at all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to EPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. The provisions for exemption from compliance during periods of startup, shutdown and malfunctions provided for in 40 C.F.R. § 60.8(c) do not apply to Subpart OOOOa.

The Ohio SIP

- 35. Pursuant to Section 110(a)(1) of the CAA, 42 U.S.C. § 7410(a)(1), each state is responsible for adopting and submitting to EPA for approval an implementation plan that provides for the implementation, maintenance, and enforcement of National Ambient Air Quality Standards ("NAAQS") for particular pollutants, including ground-level ozone.
- 36. Under Section 110(a)(2) of the CAA, 42 U.S.C. § 7410(a)(2), each SIP must include enforceable emission limitations and other control measures, means, or techniques, as well as schedules for compliance, as may be necessary to meet applicable requirements, and must include a permit program to provide for the enforcement of these limitations, measures, and schedules as necessary to assure the NAAQS are achieved. Upon EPA's approval of a SIP, the plans become independently enforceable by the federal government, as stated under Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1).
- 37. EPA has approved various provisions of the Ohio Administrative Code ("Ohio Admin. Code") as part of the Ohio SIP, including Ohio Admin. Code §§ 3745-31-02 and 3745-31-29. 78 Fed. Reg. 11,748 (Feb. 20, 2013); 80 Fed. Reg. 36,477 (June 25, 2015); 40 C.F.R. § 52.1870(c).
- 38. The Ohio SIP, at Ohio Admin. Code § 3745-31-29, allows the Director of the Ohio Environmental Protection Agency ("Ohio EPA") to develop model general permits to install and model general permits to operate for certain categories of air emissions sources.
- 39. The Ohio SIP, at Ohio Admin. Code § 3745-31-02, establishes requirements for installation, modification and operation of new and existing air contaminant sources via a program for sources to obtain a Permit-to-Install (PTI) or a Permit-to-Install-and-Operate (PTIO).

The GP 12.1 and 12.2 Permit Program for Oil and Gas Well-Site Production Operations

- 40. On January 31, 2012, Ohio EPA finalized a model general permit ("GP 12") to install and operate ("PTIO") for oil and gas well production operations. In April 2014, Ohio EPA revised the GP 12 to incorporate Subpart OOOO requirements and to create two different versions of the model permit ("GP 12.1" and "GP 12.2") for facilities that meet different qualifying criteria. ¹
- 41. GP PTIO 12.1 and GP PTIO 12.2 expressly incorporate relevant requirements of Subpart OOOO, including those listed at paragraphs 8 through 18. GP PTIO 12.1 and GP PTIO 12.2 supplement, but do not supplant, the requirements of Subpart OOOO for storage vessels at oil and gas well production facilities.
 - 42. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition A. 1, state:

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

43. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition A. 13, state:

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

44. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 4. c) (1), state:

The flare or combustion device shall be operated with a flame present at all times when gases are vented to it.

45. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 4. d) (1), state:

If the permittee is using the flare/combustion device to demonstrate compliance with 40 CFR 63.771(d) for the TEG dehydrator or to demonstrate compliance with 40 CFR 60.5412(d) for each storage vessel calculated to have VOC emission equal to or exceeding 6 tons per year, the permittee shall maintain the appropriate records to demonstrate that the enclosed flare/combustion device is designed and operated to reduce VOC, TOC, or total HAP by 95% by weight; or the concentration of TOC or Total HAP to 20 ppm by volume on a dry basis and corrected to 3% oxygen, all in accordance with the applicable rules; or shall maintain the records required to demonstrate that the open flare is designed and operated in accordance with 40 CFR 63.11(b) or 40 C.F.R. 60.18(b), as applicable per federal rules.

46. The GP 12.1 and GP PTIO 12.2 Permits, at Condition C. 4. d) (2), state:

¹ The different versions pertain to capacities of the flare and engines at the well pad. Both versions of the general permit contain identical language cited in this matter, and so the differences in permit versions are not relevant to this NOV/FOV.

The permittee shall: 1) continuously monitor the presence of the flame; 2) record all periods during which the automatic flare ignition system (pilot flame or electronic arc ignition system) or thermocouple was not working and gas was being vented to the flare/combustion device; and 3) record all periods of time during which gas was being vented to the flare/combustion device and there was no flame.

47. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 6. b) (1) c., state:

The facility must calculate the potential for VOC emissions for each single storage vessel using an accepted model or calculation methodology, based on the maximum average daily throughput determined for a 30-day period of production prior to 10/15/13 for Group 1 storage vessels*, or determined for a 30-day period of production prior to 4/15/14 or 30 days after startup for Group 2 storage vessels**.²

Where these potential VOC emissions are calculated to equal or exceed 6 TPY, the permittee must either maintain the uncontrolled actual VOC emissions at less than 4 TPY and maintain monthly emission calculations in accordance with 40 CFR 60.5395(d)(2); or install a control device, closed vent system, and covers designed and operated to reduce VOC emissions by 95.0%, and by 4/15/14 or 60 days after startup for Group 2 storage vessels or by 4/15/15 for Group 1 storage vessels.

Conduct monthly inspections of collection and control equipment.

48. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 6. b) (2) e., state:

Unless meeting the requirements of 40 CFR 60.5395(d)(2), where the uncontrolled actual VOC emissions can be demonstrated to be less than 4 tons per year, or where it has been demonstrated that the potential VOC emissions are less than 6 TPY, the VOC emissions from each storage vessel affected facility shall be reduced by 95.0 percent by April 15, 2014, or within 60 days after startup, for Group 2 storage vessels; or by April 15, 2015 for Group 1 storage vessels.

[40 CFR 60.5395] and [40 CFR 60.5415(e)(3)]

49. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 6. b) (2) f., state:

Any vapors from storage vessels that are recovered and routed to a vapor recovery unit (VRU) system meeting the cover and closed vent system requirements specified in 40 CFR 60.5411(b) and (c) are not required to be included in the determination of VOC potential to emit for purposes of determining affected facility status for NSPS Subpart OOOO. However, if the VRUs are removed or if the system fails to meet the cover and closed vent system requirements of Subpart OOOO, the potential VOC emissions from each such storage vessel shall be calculated within 30 days of the removal or non-compliant operations of the VRU system.

[40 CFR 60.5365(e)]

² The GP PTIO 12.1 and GP PTIO 12.2 language contains the asterisks but has no corresponding footnotes.

50. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 6. c) (2), state:

Each storage vessel subject to the control requirements of Part 60 Subpart OOOO shall be equipped with a cover that meets the requirements of 40 CFR 60.5411(b); and the storage vessel shall be connected through a closed vent system designed and operated with no detectable emissions, as determined using olfactory, visual and auditory inspections, and in accordance with 40 CFR 60.5411(c) to either: 1. an enclosed combustion control device, designed and operated in accordance with 40 CFR 60.5412(d) or 40 CFR 60.5413(d); 2. an open flare meeting the requirements identified in this permit; or 3. to a process. The collection and control systems shall be operated at all times when gases, vapors, and fumes are vented from the subject storage vessels to a control device; and where routing emissions to a process it must be operational 95% or more of the year.

[40 CFR 60.5365(e)], [40 CFR 60.5395], [40 CFR 60.5410(h)], [40 CFR 60.5411(b) and (c)(1) and (2)], and [40 CFR 60.5412(d)] or [40 CFR 60.5413(d)], and [40 CFR 60.5415(e)(3)]

51. The GP 12.1 PTIO and GP PTIO 12.2 Permits, at Condition C. 6. d) (2), state:

Where using vapor recovery unit(s) (VRU) for compliance, the permittee shall maintain records that document the VRU system is operated in compliance with the cover and closed vent system requirements of 40 CFR 60.5411(b) and 40 CFR 60.5411(c).

[40 CFR 60.5365(e)]

52. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 6. d) (3), state:

Where required, the permittee shall conduct monthly inspections for each closed vent system, each cover, and the combustion control device used to demonstrate compliance in accordance with 40 CFR 60.5416(c) and 40 CFR 60.5417(h); and shall maintain the records identified in 40 CFR 60.5420(c).

[40 CFR 60.5416(c)], [40 CFR 60.5417(h)], [40 CFR 60.5411(b) and (c)], [40 CFR 60.5415(e)(3)], and [40 CFR 60.5420(c)]

53. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 6. e) (2), state:

The permittee shall submit an initial annual report within 90 days after the end of the initial compliance period for each storage vessel determined to have potential VOC emissions equal or greater than 6 tons per year. Subsequent annual reports are due no later than the same date each year following the initial report. The reports shall include the information identified in 40 CFR 60.5420(b).

[40 CFR 60.5420(b)] and [40 CFR 60.5410(h) and (i)]

54. The GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 6. f) (1), state, in pertinent part:

<u>Applicable Compliance Method, through design of collection and controls:</u>
Initial compliance with the Part 60, Subpart OOOO standards for storage vessel affected facilities shall be demonstrated by complying with the applicable portions of 40 CFR

60.5411(b) and (c), and 40 CFR 60.5412(d) or 40 CFR 60.5413(e) if the control device is tested by the manufacturer.

Continuous compliance with the Part 60, Subpart OOOO standards for storage vessel affected facilities shall be demonstrated by complying with the applicable portions of 40 CFR 60.5415(e), 40 CFR 60.5416(c), and 40 CFR 60.5417(d) or (h).

Group 1 storage vessels (installed between 8/24/11 and 4/12/13) must be in compliance by April 15, 2015; and Group 2 storage vessels (installed after 4/12/13) must be in compliance by 4/15/14 or within 60 days after startup. In the event an amendment to NSPS Subpart OOOO requires a performance test for the combustion control device to demonstrate compliance, the permittee shall schedule such performance test as required by the amended rules.

[40 CFR 60.5365(e)], [40 CFR 60.5395], [40 CFR 60.5410(h)], [40 CFR 60.5411(b) and (c)], [40 CFR 60.5412(d) or 40 CFR 60.5413(d)], [40 CFR 60.5415(e)(3)], and [ORC 3704.03(T)]

Cole Permit

- 55. On February 7, 2017, Ohio EPA issued to PDC Energy PTIO P0120400 for the Cole Well Pad ("Cole PTIO"). The Cole PTIO is effective until its expiration date of May 14, 2025.
- 56. Permit condition A. 1. of the Cole PTIO states: "This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements)."
- 57. Permit condition A. 13. of the Cole PTIO states: "You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder."
- 58. Section C. 2 of the Cole PTIO sets forth Terms and Conditions for Emission Units P001 and P004, which are each a 5.7 MMBtu/hr Flare 1 and 5.7 MMBtu/hr Flare 2, respectively.
- 59. Permit condition C. 2. b) (1) a. states, in pertinent part, "Install and operate a flare that is designed to achieve $\geq 98\%$ VOC overall control efficiency."
- 60. Permit condition C. 2. c) (2) states, "The flare or combustion device shall be operated with a flame present at all times when gases are vented to it.
- 61. Permit condition C. 2. c) (3) states, "An automatic flame ignition system shall be installed to meet one of the following requirements:
 - a. If using a pilot flame ignition system, the presence of a pilot flame shall be monitored using a thermocouple or other equivalent device to detect the presence of a flame. A pilot flame shall be maintained at all times in the flare's pilot light

burner. If the pilot flame goes out and does not relight, then an alarm shall sound; or

- b. If using an electric arc ignition system, the arcing of the electric arc ignition system shall pulse continually and a device shall be installed and used to continuously monitor the electric arc ignition system."
- 62. Section C. 3 of the Cole PTIO sets forth Terms and Conditions for Emission Units T001, which are described as:

Tanks:Gun barrel tankscondensate (4 @ 500 bbl), Condensate tanks (8 @ 500 bbl), and Produced water storage tanks (4 @ 500 bbl), all of which are controlled by a VRC [Vapor Recovery Compressor] with flares as backup (EUs P001 and P004) with \geq 98% overall control efficiency when the VRC is down.

- 63. Permit condition C. 3. c) (1) states, "Flash, working, and breathing vapors from the gun barrel condensate and water tanks, condensate tanks, and produced water storage tanks shall be vented to and controlled by the VRC with flares as backup with \geq 98% overall control efficiency when the VRC is down."
- 64. Permit condition C. 3. c) (4) states, "The permittee shall install and operate a system to automatically close the shutdown valves for the wells when the VRC and flares are both not operating in order to prevent the tank(s) from uncontrolled venting. This system shall continuously monitor the tank pressure, the liquid level, or both."
- 65. Permit condition C. 3. d) (6) states, "The permittee shall maintain records that document any time periods when the VRC or flare was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the VRC or flare was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request."
- 66. Permit condition C. 3. d) (7) states, "(7) The permittee shall maintain records of the tank pressure, liquid level, or both as required in 5.c)(4)³. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request."
- 67. Permit condition C. 3. d) (9) states, "The permittee shall properly install, operate, and maintain a thermocouple or equivalent device to monitor and record the presence of a flame when organic vapors are being routed to the flare, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. These records shall be maintained for a period of no less than five years. These records can be kept electronically, provided they can be made available to the appropriate Ohio EPA District Office or local air agency."

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³ This should be 3.c)(4).

- 68. On August 7, 2018, Ohio EPA issued to PDC Energy PTIO P0122240 for the Dynamite Well Pad ("Dynamite PTIO"). The Dynamite PTIO is effective until its expiration date of August 7, 2023.
- 69. Permit condition A. 1 of the Dynamite PTIO states: "This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements)."
- 70. Permit condition A. 13. Of the Dynamite PTIO states: "You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder."
- 71. Permit condition B. 2. of the Dynamite PTIO states, in part: "The permittee must comply with the applicable requirements of 40 CFR Part 60 Subpart OOOOa as they apply to the emissions sources located at the facility which includes, but not inclusive of, the following permitted and permit exempt emissions units:

F001 - Equipment/Pipeline Leaks

T002 - Storage Tank

T003 - Storage Tank

T005 - Storage Tank

T006 - Storage Tank

T007 - Storage Tank

T008 - Storage Tank

T009 - Storage Tank

The permittee must comply with the applicable requirements of 40 CFR Part 60 Subpart OOOO as they apply to the emissions sources located at the facility which includes, but not inclusive of, the following permitted and permit exempt emissions units:

T001 - 12 storage tanks"

- 72. Permit condition C. 2. c) (2) of the Dynamite PTIO states: "Except during periods of equipment maintenance, organic vapors released from the non-produced water storage tanks shall be vented to and controlled at all times by either the vapor recovery compressor (VRU) or by a combustor flare. The flare/combustor must comply with and meet the requirements detailed in the permit for the flare emissions units (See P004, P011 and P012)."
- 73. Permit condition C. 2. c) (3) of the Dynamite PTIO states: "The permittee shall operate the VRU and/or flare at all times in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modification deemed necessary by the permittee."
- 74. Permit condition C. 3. d) (1) of the Dynamite PTIO states: "If the permittee is using the flare/combustion device to demonstrate compliance with 40 C.F.R. § 60.5412(d) for each storage vessel calculated to have VOC emission equal to or exceeding 6 tons per year, the permittee shall maintain the appropriate records to demonstrate that the enclosed flare/combustion device is designed and operated to

reduce VOC, TOC, or total HAP to 20 ppm by volume on a dry basis and corrected to 3% oxygen, all in accordance with the applicable rules."

- 75. Permit condition C. 3. d) (2) of the Dynamite PTIO states: "The permittee shall: a) continuously monitor the presence of the flame; b) record all periods during which the automatic flare ignition system (pilot flame or electronic arc ignition system) or thermocouple was not working and gas being vented to the flare/combustion device; and c) record all periods of time during which gas was being vented to the flare/combustion device and there was no flame."
- 76. Permit condition C. 3. d) (8) of the Dynamite PTIO states: "The permittee shall maintain records that document any time periods when the flare(s) were not in service when the VRU was not in operation or bypassed, as well as a record of all operations during which the flare was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request."
- 77. Permit condition C. 4. c) (2) of the Dynamite PTIO states: "Except during periods of equipment maintenance, organic vapors released from the non-produced water storage tanks shall be vented to and controlled at all times by either the vapor recovery compressor (VRU) or by a combustor flare. (P004, P011 and P012)."
- 78. Permit condition C. 4. c) (4) of the Dynamite PTIO states, in part: "The permittee shall comply with the applicable requirements under 40 CFR Part 60, Subparts A and OOOOa, including the following sections:

60.5395a(b)(1)	For controlled vessels, equip with a cover meeting 60.5411a(b), connected through a closed vent system meeting 60.5411a(c), and route emissions to a control that meets 60.5412a(c) and (d), or to a process that reduces VOC emissions by 95.0 percent.
60.5395a(d)(1) and (2)	Demonstrate initial and continuous compliance, per 60.5410a(h) and (i), and 60.5415a(e)(3).
60.5410a(h)	Demonstrate initial compliance, including determination, reduction, and control of VOC emissions, conduct performance testing per 60.5410a(h)(4), maintain records and submit information, by the deadlines as specified in the final effective rule.
60.5411a(b)	The cover and all openings shall form a continuous impermeable barrier over the entire surface area of the liquid in the vessel.

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60.5411a(c) 60.5415a(e)	Design the closed vent system to route all gases, vapors, fumes emitted from the material in the vessel to a control device that meets requirements specified in 60.5412a(c) and (d), or to a process, and operate the system with no detectable emissions, as determined using olfactory, visual, and auditory inspections. Demonstrate continuous compliance for
00.3413a(C)	each storage vessel. Reduce methane and VOC as per 60.5395a(a). For controls installed to meet 60.5395a(a), demonstrate compliance with 60.5412a(d) using the procedure in 60.5415a(e)(3)(ii)(A), which is comply with 60.5416a(c), and either 60.5415a(e)(3)(ii)(B), which is comply with 60.5417a(h), or 60.5415a(e)(3)(ii)(C), which is to route to a process per 60.5411a(c)(2).
60.5416a(c)	Meet the requirements and inspect each cover and closed vent system at least once each calendar month per (c)(1) and (2), and meet requirements for bypass devices, under (c)(3), and conduct repairs as soon as practical, as per (c)(4) - (7).
60.5417a	Demonstrate compliance for each control device, in accordance with (d)-(g) and (h), unless exempt per rule.
60.5417a(h)(2)	Conduct inspections at least once every calendar month for vapor recovery devices.

79. The CAA authorizes EPA to take enforcement action if EPA finds that any person is in violation of any SIP requirements, including limitations and conditions contained in permits issued pursuant to a SIP, such as these limitations and conditions contained in GP PTIO 12.1, GP PTIO 12.2, Cole PTIO and Dynamite PTIO Permits.

Relevant Factual Background

- 80. URO is a limited liability company incorporated in the State of Delaware and doing business in the State of Ohio.
 - 81. URO maintains a corporate office located at 2167-C State Route 821, Marietta, Ohio.

- 82. URO is a "person" within the meaning of Section 302(e) of the CAA, 42 U.S.C. § 7602(e).
- 83. URO owns and operates several oil and natural gas well pads in Guernsey, Noble, Morgan, and Washington counties in eastern Ohio. The well pads are listed in the tables in Attachments A, B, and C. URO acquired the well pads from PDC Energy in approximately early 2018. Each well pad was issued a PTIO under Ohio EPA's General Permit program, either a site-specific PTIO or a GP 12.1 or 12.2, as listed.
- 84. Each of URO's well pads listed in Attachments A, B, and C includes storage vessels that contain an accumulation of condensate or produced water, and that are constructed primarily of non-earthen materials.
- 85. URO's storage vessels at the well pads listed in Attachments A, B, and C were all constructed after August 23, 2011, and are therefore subject to regulation under Subparts OOOO or OOOOa, as applicable based on date of construction⁴.
- 86. On April 18, 2019, EPA staff inspected and observed the well pads owned and operated by URO listed in Attachments A, B, and C.
 - 87. In October 2019, EPA issued to URO an information request under Section 114 of the CAA.
- 88. On December 6, 2019, URO responded to the information request. URO's responses to the information request included, among other things, emissions evaluations of the storage vessels at all the well pads listed in Attachments A, B, and C.
- 89. Each of URO's storage vessels at the well pads listed in Attachments A, B, and C had the potential for VOC emissions equal to or greater than six (6) tons per year for a 30-day period of production prior to the applicable emission determination deadline as specified in Subparts OOOO and OOOOa, as applicable.
- 90. For each of the well pads in Attachments A, B, and C, permit applications were submitted to Ohio EPA between November 2012 and January 2017. The permit applications contained statements that the facilities would comply with certain operating, monitoring, recordkeeping, reporting, and compliance testing or compliance demonstration requirements.
- 91. The PTIOs issued to the well pads listed in Attachments A, B, and C include no legally and practically enforceable limits to restrict the potential VOC emissions from each storage vessel to less than six (6) tons per year.
- 92. The storage vessels at URO's well pads listed in Attachments A, B, and C are "storage vessel affected facilities" under Subparts OOOO or OOOOa, as applicable based on the storage vessels' date of construction.
- 93. During the April 2019 inspections, EPA staff detected emissions from thief hatches or pressure relief devices on storage vessels at all the well pads listed in Attachment A.

15

⁴ Storage vessels constructed after August 23, 2011 and on or before September 18, 2015 are subject to NSPS Subpart OOOO. Storage vessels constructed after September 18, 2015 are subject to NSPS Subpart OOOOa.

- 94. During the April 2019 inspections, EPA observed that the combustion control devices at the well pads listed in Attachment B were not operating with a continuous pilot flame while vapors were being directed to them.
- 95. In response to EPA's October 2019 information request, for all well pads listed in Attachments A, B, and C, URO provided less than 5 years of records documenting any time periods when a VRC or flare was not in service when the emissions unit(s) was/were in operation.
- 96. In response to EPA's October 2019 information request, URO stated that "Utica does not currently monitor and record the pressure, flow rate, and/or throughput of storage vessel vapors routed to a combustor at any of the relevant facilities."
- 97. On April 27, 2020, URO submitted a letter to Ohio EPA disclosing noncompliance with certain terms and conditions of the PTIOs issued for the Cole, Detweiler, Dynamite, Garvin, Mason, Miley, Neff, Neill, Palmer, Stiers, and Onega Commissioners well pads. *See* Attachment D.
- 98. On June 1, 2020, Ohio EPA responded to URO's April 27, 2020 letter, stating that URO "does not qualify for immunity for the disclosed alleged violations from administrative and/or civil penalties pursuant to" Ohio Revised Code § 3745.72 since it was "aware of an ongoing investigation or enforcement action by a government agency charged with enforcing environmental laws" namely, EPA's October 2019 information request "when the company conducted its environmental audit." *See* Attachment E.

Violations

- 99. Based on the above described detectable emissions from storage vessels observed by EPA staff at the well pads listed in Attachment A, URO has failed to ensure that the covers on the storage vessels meet certain requirements, including that the covers and all openings shall form a continuous impermeable barrier over the entire surface area of the liquid in the vessel, and that each cover opening shall be secured in a closed, sealed position except when certain activities are ongoing, violating 40 C.F.R. § 60.5411(b) or § 60.5411a(b), as applicable determined by construction date; and GP 12.1 and 12.2 Permit Conditions C. 6. b) (1) c. and C. 6. c) (2) as applicable.
- 100. Based on the above described detectable emissions from storage vessels observed by EPA staff, URO has failed to design the closed vent systems at well pads in Attachment A to route all gases, vapors and fumes emitted from the material in the storage vessels to a control device, and to design and operate closed vent systems with no detectable emissions, as determined using olfactory, visual, and auditory inspections, violating 40 C.F.R. § 60.5411(c) or § 60.5411a(c), as applicable determined by construction date; and GP 12.1 and 12.2 Permit Conditions C. 6. b) (1) c. and C. 6. c) (2) as applicable.
- 101. Based on, among other things, URO's failure to meet certain cover, closed vent and control device requirements, demonstrated by the above described detectable emissions from storage vessels observed by EPA staff, as well as URO's failure to keep certain required records of control device operation, URO has failed to demonstrate initial compliance at the storage vessel affected facilities listed in Attachment A, violating 40 C.F.R. § 60.5410(h) or § 60.5410a(h), as applicable determined by construction date; and GP 12.1 and 12.2 Permits, at Condition C. 6. f) (1), as applicable.
- 102. Based on, among other things, URO's failure to meet certain cover, closed vent and control device requirements, demonstrated by the above described observations of combustor operation observed by EPA staff, as well as URO's failure to keep certain required records of control device

operation, URO has failed to demonstrate initial compliance at the storage vessel affected facilities listed in Attachment B, violating 40 C.F.R. § 60.5410(h) or § 60.5410a(h), as applicable determined by construction date; and GP 12.1 and 12.2 Permits, at Condition C. 6. f) (1), as applicable.

- 103. Based on, among other things, URO's failure to keep certain required records of control device operation, URO has failed to demonstrate initial compliance at the storage vessels listed in Attachment C, violating 40 C.F.R. § 60.5410a(h).
- 104. Based on the above described detectable emissions from storage vessels observed by EPA staff, URO failed to operate its facilities in Attachments A and B in a manner consistent with good air pollution control practice for minimizing emissions, in violation of 40 C.F.R. § 60.5370(b) or § 60.5370a(b), as applicable.
- 105. URO failed to operate its combustors at well pads in Attachment B with a continuously burning pilot flame while gas was being routed to the combustor, in violation of Subpart OOOO, at 40 C.F.R. § 60.5412(d)(1)(ii); Subpart OOOOa, at 40 C.F.R. § 60.5413a(e)(2); GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 4. c) (1); and Permit condition C. 2. b) (1), C. 2. c) (2) and C. 2. c) (3) a. of the Cole PTIO, as applicable.
- 106. At the facilities in Attachments A, B and C, URO failed to maintain, for a period of not less than five years, records that document any time periods when the VRC or flare was not in service when the emissions unit(s) was/were in operation, in violation of GP PTIO 12.1 and GP PTIO 12.2 Permits, at Condition C. 4. d) (1); Permit condition C. 3. d) (6) of the Cole PTIO; and Permit condition C. 3. d) (8) of the Dynamite PTIO.
- 107. Based on EPA's review of the materials submitted to Ohio EPA, URO's response to the October 2019 information request, and observations made during the April 2019 inspections at the facilities in Attachments A, B and C, URO failed to install and operate the unit(s) in accordance with the applications submitted and all the terms and conditions contained in the PTIOs, in violation of Permit Condition A. 1. of the PTIOs.
- 108. At the Cole Well Pad, URO failed to install and operate a system to continuously monitor the tank pressure, the liquid level, or both, and to automatically close the shutdown valves for the wells when the VRC and flares are both not operating in order to prevent the tank(s) from uncontrolled venting, in violation of Permit condition C. 3. c) (4) of the Cole PTIO.
- 109. Based on the noncompliance disclosed in its April 27, 2020 letter included as Attachment D, and on Ohio EPA's June 1, 2020 response included in Attachment E, URO is in violation of the PTIO conditions enumerated in its April 27, 2020 letter.

Michael D. Harris Division Director Enforcement and Compliance Assurance Division